

NAME _____ DATE _____ PD _____

You may use a calculator and write on this review.

Simplify.

1.) $-4 - (2^2 - 5)^3 + 8$

2.) $24 - \frac{3^3 - (10 + 16)}{4 \div 4}$

3.) $\frac{42 \div 6 \cdot 2}{8 \times 2 \div 2}$

4.) $\frac{(-3 - 1)^2 + 3 \div 3}{-16 \cdot 2 \div 8}$

5.) $-3(5 \cdot 2 - 8)^2 + 10$

6.) $|3 - 21| + |7|$

7.) $5|1 - 6 + 4| - |-3|$

8.) $-|24 \div 8 - 5| - |-6 - 2|$

9.) $|6 - 12 \div 4| + 2|3 - 19|$

10.) $\frac{|-11| + (1 - 4)^2 - 6}{12 \div 4 - 2}$

Evaluate #11-15 using the given values: $x = 0$, $y = -3$, $z = 2$

11.) $x^2 - y^2 + z^2$

12.) $\frac{2y - z^2}{-3y + x}$

13.) $-x - y - z$

14.) $y^3 \div 9 - 4z$

15.) $\frac{x - y - z^2}{-2 - y - 3x}$

List the classification subsets for each real number for #16-20.
Natural Number (N), Whole Number (W), Integer (I), Rational (Q),
Irrational (Ir), Real (R).

16.) 9.6

17.) $\sqrt{5}$

18.) $\frac{-5}{9}$

19.) 4

20.) 0.121212...

For #21-24 tell which of the following properties apply:

Commutative Property of Addition

Commutative Property of Multiplication

Associative Property of Addition

Associative Property of Multiplication

Identity Property of Addition

Identity Property of Multiplication

Inverse of Addition

Inverse of Multiplication

21.) $-4 + 4 = 0$

22.) $9 + 2 + 7 = 7 + 2 + 9$

23.) $1 = \frac{2}{3} \cdot \frac{3}{2}$

24.) $x + 0 = x$

Solve.

25.) A) $x - 8 = 21$

B) $13 - x = 16$

26.) A) $\frac{1}{2} + x = \frac{5}{7}$

B) $g + \frac{1}{3} = \frac{3}{5}$

27.) A) $2x + 3 = 7x - 2$

B) $-3x - 4 = 2x + 10$

28.) A) $7 - 4y = 2y + 31$

B) $-3z + 5 = 2z + 30$

29.) A) $-3(x - 7) = -10$

B) $5(-2x + 7) = 85$

30.) A) $2 - 3x = -5(x - 6)$

B) $-4x - 3 = 5(x + 3)$

31.) A) $5m - 3(m - 3) = 3(m + 3)$

B) $-2m + 5(m + 3) = -2(m - 3)$

32.) A) $x - 9 = -2(x - 1) - 2$

B) $x + 1 = -4 - 6(x - 1)$

Solve for the indicated variable.

33.) $A = bh$, for b

34.) $P = 2l + 2w$, for w

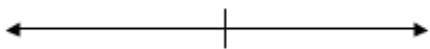
35.) $y = mx + b$, for x

36.) $-2x + 4y = 8$, for y

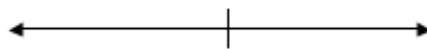
37.) $-x - y + 5 = 0$ for x

38.) Graph the following inequalities:

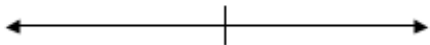
A) $x > 0$



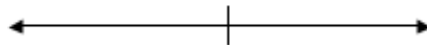
B) $x \geq 9$



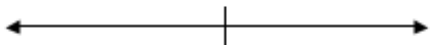
C) $x < -2$



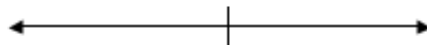
D) $x \leq 1$



E) $-6 \leq x \leq 0$



F) $2 < x \leq 5$



G) $-8 < x < 6$



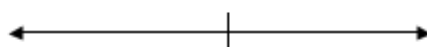
H) $-7 \leq x \leq -4$



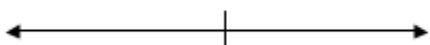
I) $x \leq -1$ OR $x \geq 10$



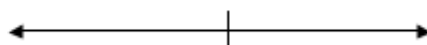
J) $x > -4$ AND $x < 10$



K) $x \leq -1$ OR $x > 11$

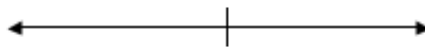


L) $x > -3$ AND $x < 10$



Solve and graph each inequality.

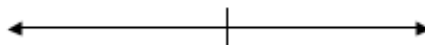
41.) $-4 + 2x - x > 3$



42.) $-5x + 3 < 6 - 4x$



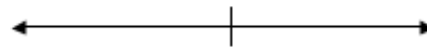
43.) $-5 - \frac{x}{4} \geq -6$



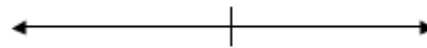
44.) $0 \leq 2x + 4 \leq 12$



45.) $|x - 3| > 5$



46.) $|x - 2| \leq 10$



47.) What is $-5\frac{1}{3}$ as a decimal?

48.) What is 9.56 as a percent?

49.) What is 0.56 as a fraction?

50.) 2 is what percent of 40?

51.) What percent of 12 is 4?

52.) What is 85% of 200?

For #53-55, solve the proportions for x.

53.) $\frac{10}{15} = \frac{3}{x}$

54.) $\frac{3}{x-2} = \frac{2}{x}$

55.) $\frac{x}{2} = \frac{x+4}{4}$

56.) Jake can read 20 pages in 1 hour. At this rate, how many hours will it take him to read a 240 pages?

Use the chart below to answer question 57.

x	y
4	8
5	-1
6	3
4	9
8	3

57.) State the Domain of this relation and whether or not it is a function.

Use the chart below to answer questions 58 and 59.

x	y
0	1
1	2
2	3
-1	4
6	5

58.) State the Range of this relation and whether or not it is a function.

59.) List the ordered pairs of the relation.

60.) What is the slope of the line containing the given values?

x	y
1	4
2	5
3	6
4	7

61.) What is the slope of the line containing the points (-5, 6) and (-5, -7)?

62.) What is the slope of the line containing the points (2,9) and (3, -9)?

63.) What is the slope of the line with the equation $y = -x - 12$?

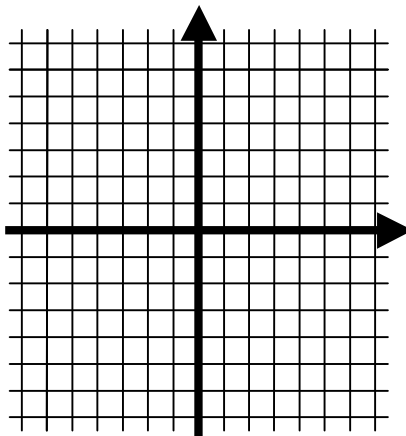
64.) What is the slope of the line with the equation $3 - 4y = 2x$?

65.) What is the y-intercept of the line with the equation $-2y - 6 = \frac{x}{2}$?

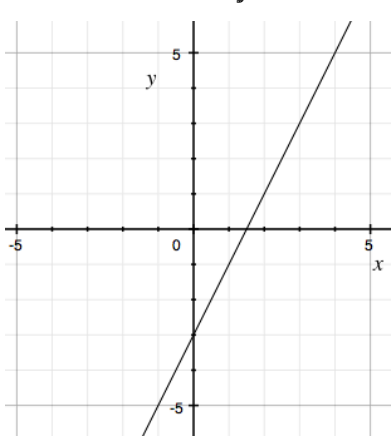
66.) What is the slope and y-intercept of the line with the equation $y - 3 = -(x - 4)$?

67.) Graph the line represented in the chart below?

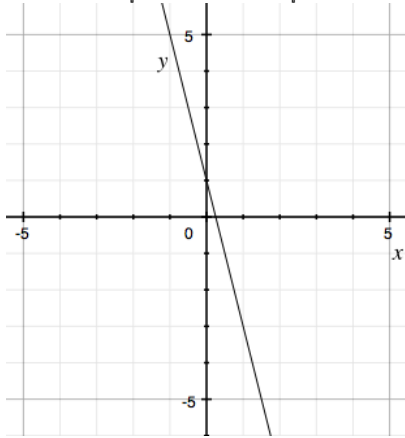
x	y
2	4
3	6
4	8
5	10



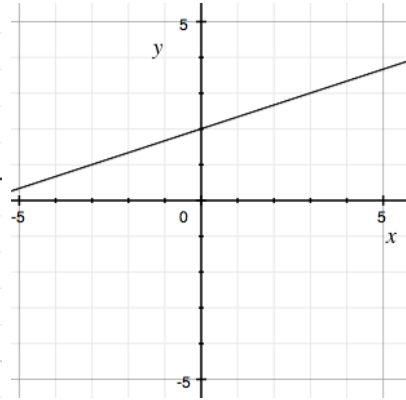
68) What is the equation of the line represented in each of the graphs below? Write your answer in slope intercept form.



A) _____

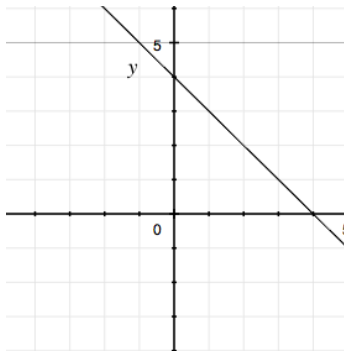


B) _____

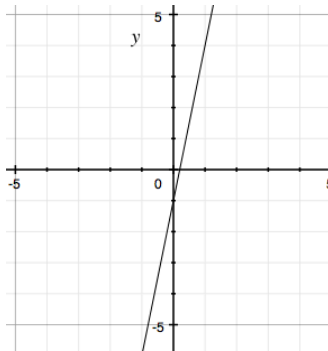


C) _____

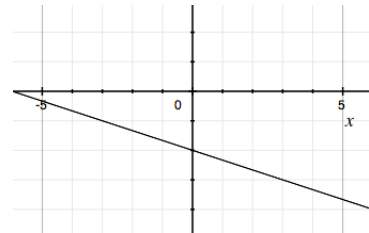
69) What is the equation in standard form of the line represented in each of the graphs below?



A) _____



B) _____



C) _____

70.) Write the equation of the line parallel to $y = \frac{-x}{4} + 5$ with a y-intercept of (0, -1).

71.) Write the equation of the line perpendicular to $y = 2x - 6$ with a y-intercept of (0, 2).